# Marine Osprey flies in to fuel up F-35B

By Kenji Thuloweit, 412th Test Wing Public Affairs / Published April 29, 2016

EDWARDS AIR FORCE BASE, Calif. -- A U.S. Marine Corps MV-22B Osprey descended on Edwards to link up with a Marine F-35B Joint Strike Fighter April 28.

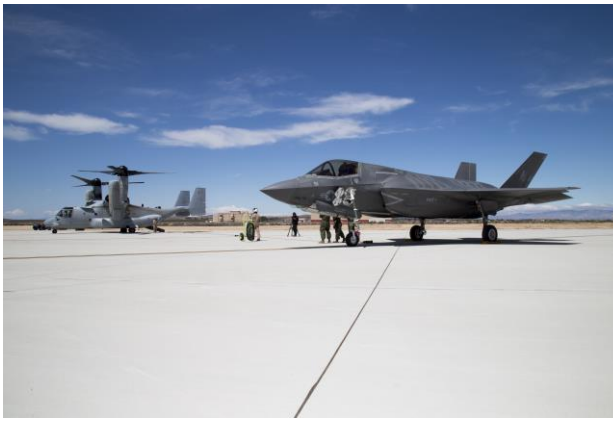
Both aircraft are assigned to Marine Operational Test & Evaluation Squadron 22 (VMX-22) out of Marine Corps Air Station Yuma in Arizona.

VMX-22 has a detachment here where Marines are testing and evaluating their version of the JSF, which is the short take-off and vertical landing variant.

The Osprey dropped by for a quick but important test.

"The test was to validate ground refueling from an MV-22 to an F-35B, which is integral to the construct of the Marine Air-Ground Task Force," said USMC Maj. Adam Geitner, pilot and VMX-22 F-35 Detachment Aircraft Maintenance officer.

The Marine Air-Ground Task Force is the organizational foundation for all missions across the range of USMC military operations. MAGTFs are a balanced air-ground, combined arms task organization of Marine Corps forces under a single commander that is structured to accomplish a specific mission.



A U.S. Marine Corps MV-22B Osprey descended on Edwards to link up with a Marine F-35B Joint Strike Fighter April 28. Both aircraft are assigned to Marine Operational Test & Evaluation Squadron 22 (VMX-22) out of Marine Corps Air Station Yuma in Arizona. VMX-22 has a detachment here where Marines are testing and evaluating their version of the JSF, which is the short take-off and vertical landing variant. (U.S. Air Force photo by Christian Turner)

"This was the first time an MV-22 has refueled an F-35. Both ground refueling and air-to-air refueling are important pieces to the Marine Corps' MAGTF operational construct," Geitner said. "From a tactical point of view, the MV-22 to F-35 ground refueling allows the Marine Corps to employ assets in austere environments on a short notice without having to rely on long-term planning and fixed facilities."

The one-hour test consisted of hooking up fuel transfer lines between the two aircraft with the MV-22 fueling up the F-35B. The test validated the equipment and procedures on both the F-35B and MV-22.

Geitner said the MV-22 Osprey has the ability to carry approximately 10,000 pounds of fuel in its fuel containers loaded in the back of the aircraft. This is coupled with approximately 12,000 pounds carried internally, which can either provide fuel to its own aircraft or to external aircraft in air-to-air refueling operations.

Fuel was successfully transferred to the F-35, which taxied off back to the Joint Operation Test Team area.

"The next step will be air-to-air refueling from an MV-22. This is even more significant for the MAGTF when operating F-35s from [amphibious assault ships] because it provides organic air-to-air refueling capability that vastly extends the range of the aircraft and also provides operational flexibility," said Geitner.

Previously, Marine AV-8B Harrier aircraft would require USMC KC-130s to provide air-to-air refueling capabilities. However, they are limited to land and when the amphibious assault ships are operating in either blue water operations, or in regions that deny them access to land-based air facilities, as it limits air-to-air refueling capabilities, Geitner added.

"With the MV-22 being on the ship, co-located with the F-35, all of those constraints with the KC-130 no longer apply."

The MV-22B Osprey is a tiltrotor vertical and/or short take-off and landing aircraft that serves as the medium-lift assault support aircraft for the Marines. The Osprey can operate as a helicopter or a turboprop aircraft. It can transport troops, equipment and supplies from ships and land bases for combat assault and support.

Edwards AFB hasn't seen an Osprey in the skies regularly since 2007. That's the year the 418th Flight Test Squadron said goodbye to the CV-22 Integrated Test Team after completing developmental test of the aircraft.